

Claims Listing

1. (currently amended) A handpiece, comprising:
a handpiece assembly including a handpiece housing; and
an insert detachably coupled to the handpiece housing, the insert including an RF electrode with a conductive portion and a dielectric between the conductive portion and a skin surface when the RF electrode is positioned at the skin to provide for passage of energy through the dielectric to the skin surface.
2. (original) The handpiece of claim 1, further comprising:
a cooling fluidic medium dispensing assembly coupled to the insert and the handpiece housing.
3. (original) The handpiece of claim 1, wherein the cooling fluidic medium dispensing assembly includes a fluid delivery member coupled to a cooling fluidic medium valve member.
4. (currently amended) The handpiece of claim 3, wherein the cooling fluidic medium valve member is positioned in the handpiece ~~housing~~ housing.
5. (currently amended) The handpiece of claim 3, wherein the cooling fluidic medium valve member is positioned in ~~the electrode assembly~~ insert.
6. (original) The handpiece of claim 3, wherein the fluid delivery member is positioned in the handpiece housing.
7. (original) The handpiece of claim 3, wherein the fluid delivery member is positioned in the insert.
8. (original) The handpiece of claim 3, wherein the fluid delivery member includes a nozzle.
9. (original) The handpiece of claim 3, wherein the fluid delivery member is configured to deliver a controllable amount of cooling fluidic medium to the RF electrode.
10. (original) The handpiece of claim 3, wherein the fluid delivery member is configured to controllably deliver a cooling fluidic medium to the back surface of the RF electrode.

11. (currently amended) A handpiece, comprising:
a handpiece assembly including a handpiece housing; and
an insert detachably coupled to the handpiece housing, the insert including an RF electrode with a conductive portion and a dielectric, a tissue interface surface and a back surface, the dielectric positioned to provide for passage of energy through the dielectric to a tissue surface; and
a fluid delivery member configured to controllably deliver fluid to a backside of the RF electrode to evaporatively cool the RF electrode and conductively cool a skin surface in contact with the front side of the RF electrode.
12. (currently amended) A handpiece, comprising:
a handpiece assembly including a handpiece housing; and
an insert detachably coupled to the handpiece housing, the insert including an RF electrode with a conductive portion and a dielectric, a tissue interface surface and a back surface, the dielectric positioned to provide for passage of energy through the dielectric to a tissue surface; and
a cooling member that includes a fluid delivery member configured to controllably deliver a cooling fluidic medium to the back surface of the RF electrode at substantially any orientation of the tissue interface surface relative to a direction of gravity.
13. (currently amended) A handpiece, comprising:
a handpiece assembly including a handpiece housing; and
an insert detachably coupled to the handpiece housing, the insert including an RF electrode with a conductive portion and a dielectric, the RF electrode being sufficiently sealed to minimize flow of a cooling fluidic medium from the back surface of the RF electrode to the tissue interface surface, the dielectric positioned to provide for passage of energy through the dielectric to a tissue surface.
14. (original)) The handpiece of claim 1, wherein the insert includes a vent.
15. (original) The handpiece of claim 3, wherein the cooling fluidic medium valve member is configured to provide a pulsed delivery of a cooling fluidic medium.
16. (original) The handpiece of claim 3, wherein the cooling fluidic medium valve member includes a solenoid valve.

17. (previously presented) A handpiece, comprising:
a handpiece assembly including a handpiece housing; and
an insert detachably coupled to the handpiece housing, the insert including an RF electrode with a conductive portion and a dielectric, the dielectric capacitively coupling energy from the RF electrode to skin surface; and
a force sensor coupled to the RF electrode, the force sensor configured to zero out gravity effects of the weight of the electrode assembly.

18. (original) The handpiece of claim 17, wherein the force sensor is configured to detect an amount of force applied by the RF electrode against a surface.

19. (cancelled)

20. (previously presented) A handpiece, comprising:
a handpiece assembly including a handpiece housing; and
an insert detachably coupled to the handpiece housing, the insert including an RF electrode with a conductive portion and a dielectric, a tissue interface surface and a back surface; and
a force sensor coupled to the RF electrode,
wherein the force sensor is configured to zero out gravity effects of the weight of the electrode assembly in any orientation of a front surface of the RF electrode relative to a direction of gravity.

21. (original) The handpiece of claim 17, wherein the force sensor is configured to provide an indication of RF electrode contact with a skin surface.

22. (original) The handpiece of claim 17, wherein the force sensor is configured to provide a signal indicating that a force applied by the RF electrode to a contacted skin surface is below a minimum threshold.

23. (original) The handpiece of claim 17, wherein the force sensor is configured to provide a signal indicating that a force applied by the RF electrode to a contacted skin surface is above a maximum threshold.

24. (previously presented) A handpiece, comprising:
a handpiece assembly including a handpiece housing; and
an insert detachably coupled to the handpiece housing, the insert including an RF electrode with a conductive portion and a dielectric, a tissue interface surface and a back surface;

a force sensor coupled to the RF electrode, and
a tare button coupled to the force sensor.

25. (original) The handpiece of claim 1, wherein the RF electrode includes a flex circuit.

26. (currently amended) A handpiece, comprising:
a handpiece assembly including a handpiece housing; and
an insert detachably coupled to the handpiece housing, the insert including an RF electrode with a conductive portion and a dielectric between the conductive portion and a skin surface when the RF electrode is positioned at the skin, the RF electrode including a flex circuit;
and ~~The handpiece of claim 25~~, wherein the flex circuit is configured to isolate flow of a cooling fluidic medium from a the back surface of the RF electrode to the tissue interface surface.

27. (currently amended) A handpiece, comprising:
a handpiece assembly including a handpiece housing; and
an insert detachably coupled to the handpiece housing, the insert including an RF electrode with a conductive portion and a dielectric between the conductive portion and a skin surface when the RF electrode is positioned at the skin, the RF electrode including a flex circuit;
and ~~The handpiece of claim 25~~, wherein the flex circuit is configured to create a reservoir for a cooling fluidic medium that gathers at a the back surface of the RF electrode.

28. (original) The handpiece of claim 17, wherein the RF electrode includes a conductive portion and a dielectric portion.

29. (cancelled)

30. (currently amended) A handpiece, comprising:
a handpiece assembly including a handpiece housing;
an insert detachably coupled to the handpiece housing; and
an RF electrode at least partially positioned in the insert, the RF electrode including a flex circuit, the RF electrode having a conductive portion and a dielectric that is positioned

between the conductive portion and a skin surface when the RF electrode is positioned at the skin surface, the dielectric positioned to provide for passage of energy through the dielectric to a tissue surface.

31. (original) The handpiece of claim 30, further comprising:
a cooling fluidic medium dispensing assembly coupled to the insert and the handpiece housing.

32. (previously presented) The handpiece of claim 31, wherein the cooling fluidic medium dispensing assembly includes a fluid delivery member coupled to a cooling fluidic medium valve member.

33. (currently amended) The handpiece of claim 32, wherein the cooling fluidic medium valve member is positioned in the handpiece housing assembly.

34. (currently amended) The handpiece of claim 32, wherein the cooling fluidic medium valve member is positioned in the ~~electrode assembly~~ insert.

35. (original) The handpiece of claim 32, wherein the fluid delivery member is positioned in the handpiece housing.

36. (original) The handpiece of claim 32, wherein the fluid delivery member is positioned in the insert.

37. (original) The handpiece of claim 32, wherein the fluid delivery member includes a nozzle.

38. (original) The handpiece of claim 32, wherein the fluid delivery member is configured to deliver a controllable amount of cooling fluidic medium to the RF electrode.

39. (original) The handpiece of claim 32, wherein the fluid delivery member is configured to controllably deliver a cooling fluidic medium to a back surface of the RF electrode.

40. (currently amended) A handpiece, comprising:
a handpiece assembly including a handpiece housing;
an insert detachably coupled to the handpiece housing; and

an RF electrode positioned in the insert, the RF electrode including a flex circuit and have a conductive portion and a dielectric, the dielectric positioned to provide for passage of energy through the dielectric to a tissue surface;

a cooling fluidic medium dispensing assembly with a valve member and coupled to the insert and the handpiece housing; and wherein the fluid delivery member is configured to controllably deliver fluid to a backside of the RF electrode to evaporatively cool the RF electrode and conductively cool the skin surface in contact with the front side of the RF electrode[.]; and wherein the flex circuit includes a dielectric and trace components.

41. (previously presented) The handpiece of claim 40, wherein the fluid delivery member is configured to controllably deliver a cooling fluidic medium to a back surface of the RF electrode at substantially any orientation of the front surface of the RF electrode relative to a direction of gravity.

42. (previously presented) The handpiece of claim 40, wherein the RF electrode is sufficiently sealed to minimize flow of a cooling fluidic medium from the back surface of the RF electrode to a skin surface in contact with the front surface of the RF electrode.

43. (original) The handpiece of claim 30, wherein the insert includes a vent.

44. (original) The handpiece of claim 32, wherein the cooling fluidic medium valve member is configured to provide a pulsed delivery of a cooling fluidic medium.

45. (original) The handpiece of claim 32, wherein the cooling fluidic medium valve member includes a solenoid valve.

46. (original) The handpiece of claim 30, further comprising:
a force sensor coupled to the RF electrode.

47. (original) The handpiece of claim 46, wherein the force sensor is configured to detect an amount of force applied by the RF electrode against a surface.

48. (previously presented) A handpiece, comprising:
a handpiece assembly including a handpiece housing;
an insert detachably coupled to the handpiece housing; and
an RF electrode at least partially positioned in the insert, the RF electrode including a flex circuit; and

a force sensor coupled to the RF electrode, wherein the force sensor is configured to zero out gravity effects of the weight of the electrode assembly.

49. (previously presented) The handpiece of claim 48, wherein the force sensor is configured to zero out gravity effects of the weight of the electrode assembly in any orientation of a front surface of the RF electrode relative to a direction of gravity.

50. (previously presented) The handpiece of claim 48, wherein the force sensor is configured to provide an indication of RF electrode contact with a skin surface.

51. (previously presented) The handpiece of claim 48, wherein the force sensor is configured to provide a signal indicating that a force applied by the RF electrode to a contacted skin surface is below a minimum threshold.

52. (previously presented) The handpiece of claim 48, wherein the force sensor is configured to provide a signal indicating that a force applied by the RF electrode to a contacted skin surface is above a maximum threshold.

53. (previously presented) The handpiece of claim 48, further comprising:
a tare button coupled to the force sensor.

54. (previously presented) A handpiece, comprising:
a handpiece assembly including a handpiece housing;
an insert detachably coupled to the handpiece housing; and
an RF electrode at least partially positioned in the insert, the RF electrode including a flex circuit; wherein the flex circuit is configured to isolate flow of a cooling fluidic medium from a back surface of the RF electrode to a front surface of the RF electrode.

55. (previously presented) A handpiece, comprising:
a handpiece assembly including a handpiece housing;
an insert detachably coupled to the handpiece housing; and
an RF electrode at least partially positioned in the insert, the RF electrode including a flex circuit; wherein the flex circuit is configured to create a reservoir for a cooling fluidic medium that gathers at the back surface of the RF electrode.

56. - 57. (cancelled).

58. (currently amended) A handpiece, comprising:
a handpiece assembly including a handpiece housing;
an insert detachably coupled to the handpiece housing, the insert including a flex circuit
and an RF electrode that includes a conductive portion and a dielectric positioned to provide
capacitive coupling between the conductive portion and a tissue surface and provide for
passage of energy through the dielectric to the tissue surface.

59. (cancelled)

60. (previously presented) The handpiece of claim 58, wherein the fluid delivery
member includes a cooling fluidic medium valve member.

61. (currently amended) The handpiece of claim 60, wherein the cooling fluidic medium
valve member is positioned in the handpiece housing assembly.

62. (currently amended) The handpiece of claim 60, wherein the cooling fluidic
medium valve member is positioned in the ~~electrode assembly~~ insert.

63. (previously presented) The handpiece of claim 58, wherein the fluid delivery
member is positioned in the handpiece housing.

64. (previously presented) The handpiece of claim 58, wherein the fluid delivery
member is positioned in the insert.

65. (previously presented) The handpiece of claim 58, wherein the fluid delivery
member includes a nozzle.

66. (previously presented) The handpiece of claim 58, wherein the fluid delivery
member is configured to deliver a controllable amount of cooling fluidic medium to the RF
electrode.

67. (previously presented) The handpiece of claim 58, wherein the fluid delivery
member is configured to controllably deliver a cooling fluidic medium to the back surface of the
RF electrode.

68. (cancelled)

69. (previously presented) The handpiece of claim 58, wherein the fluid delivery member is configured to controllably deliver a cooling fluidic medium to the back surface of the RF electrode at substantially any orientation of the front surface of the RF electrode relative to a direction of gravity.

70. (previously presented) The handpiece of claim 58, wherein the RF electrode is sufficiently sealed to minimize flow of a cooling fluidic medium from the back surface of the RF electrode to a skin surface in contact with the front surface of the RF electrode.

71. (original) The handpiece of claim 58, wherein the insert includes a vent.

72. (previously presented) The handpiece of claim 58, wherein the cooling fluidic medium valve member is configured to provide a pulsed delivery of a cooling fluidic medium.

73. (previously presented) The handpiece of claim 58, wherein the cooling fluidic medium valve member includes a solenoid valve.

74. (original) The handpiece of claim 58, further comprising:
a force sensor coupled to the RF electrode.

75. (original) The handpiece of claim 74, wherein the force sensor is configured to detect an amount of force applied by the RF electrode against a surface.

76. (currently amended) A handpiece, comprising:
a handpiece assembly including a handpiece housing;
an insert detachably coupled to the handpiece housing, the insert including a flex circuit
and an RF electrode that includes a conductive portion and a dielectric positioned to provide
capacitive coupling between the conductive portion and a tissue surface;
a force sensor coupled to the RF electrode; and ~~The handpiece of claim 74,~~ wherein the force sensor is configured to zero out gravity effects of the weight of the electrode assembly.

77. (currently amended) A handpiece, comprising:
a handpiece assembly including a handpiece housing;
an insert detachably coupled to the handpiece housing, the insert including a flex circuit
and an RF electrode that includes a conductive portion and a dielectric positioned to provide
capacitive coupling between the conductive portion and a tissue surface;

a force sensor coupled to the RF electrode; and ~~The handpiece of claim 74,~~ wherein the force sensor is configured to zero out gravity effects of the weight of the electrode assembly in any orientation of a front surface of the RF electrode relative to a direction of gravity.

78. (original) The handpiece of claim 74, wherein the force sensor is configured to provide an indication of RF electrode contact with a skin surface.

79. (original) The handpiece of claim 74, wherein the force sensor is configured to provide a signal indicating that a force applied by the RF electrode to a contacted skin surface is below a minimum threshold.

80. (original) The handpiece of claim 74, wherein the force sensor is configured to provide a signal indicating that a force applied by the RF electrode to a contacted skin surface is above a maximum threshold.

81. (currently amended) A handpiece, comprising:
a handpiece assembly including a handpiece housing;
an insert detachably coupled to the handpiece housing, the insert including a flex circuit
and an RF electrode that includes a conductive portion and a dielectric positioned to provide
capacitive coupling between the conductive portion and a tissue surface;
a force sensor coupled to the RF electrode; and ~~The handpiece of claim 74,~~ further comprising:
a tare button coupled to the force sensor.

82. (currently amended) A handpiece, comprising:
a handpiece assembly including a handpiece housing;
an insert detachably coupled to the handpiece housing, the insert including a flex circuit
and an RF electrode that includes a conductive portion and a dielectric positioned to provide
capacitive coupling between the conductive portion and a tissue surface; and ~~The handpiece of~~
~~claim 58,~~ wherein the flex circuit is configured to isolate flow of a cooling fluidic medium from the back surface of the RF electrode to the front surface of the RF electrode.

83. (currently amended) A handpiece, comprising:
a handpiece assembly including a handpiece housing;
an insert detachably coupled to the handpiece housing, the insert including a flex circuit
and an RF electrode that includes a conductive portion and a dielectric positioned to provide

capacitive coupling between the conductive portion and a tissue surface; and The handpiece of claim 58, wherein the flex circuit is configured to create a reservoir for a cooling fluidic medium that gathers at the back surface of the RF electrode.

84. (original) The handpiece of claim 58, wherein the RF electrode is configured to be capacitively coupled to a skin surface when at least a portion of the RF electrode is in contact with the skin surface.

85. (currently amended) An RF apparatus, comprising:
a housing; and
an RF electrode coupled to the housing, the RF electrode having a conductive portion and a dielectric that is positioned between the conductive portion and a skin surface when the RF electrode is positioned at the skin and provide capacitive coupling between the conductive portion and the skin surface [.] ;
wherein, the dielectric positioned to provide for passage of energy through the dielectric to the skin surface.

86. (previously presented) The RF apparatus of claim 1, further comprising:
a cooling fluidic medium dispensing assembly coupled to the housing.

87. (previously presented) The RF apparatus of claim 86, wherein the cooling fluidic medium dispensing assembly includes a valve member.

88. (previously presented) The RF apparatus of claim 86, wherein the cooling fluidic medium valve member is positioned in the housing.

89. (previously presented) The RF apparatus of claim 87, wherein the cooling fluidic medium dispensing assembly includes a nozzle.

90. (previously presented) The RF apparatus of claim 86, wherein the fluid delivery member is configured to deliver a controllable amount of cooling fluidic medium to the RF electrode.

91. (previously presented) The RF apparatus of claim 86, wherein the fluid delivery member is configured to controllably deliver a cooling fluidic medium to a back surface of the RF electrode.

92. (previously presented) The RF apparatus of claim 85, further comprising:
a force sensor coupled to the RF electrode.

93. (previously presented) The RF apparatus of claim 85, wherein the RF electrode includes a flex circuit.

94. (currently amended) An RF apparatus, comprising:
a housing; and
an RF electrode coupled to the housing, the RF electrode including a conductive portion and a dielectric portion that capacitively couples the conductive portion to a tissue surface; and
a flex circuit coupled to the RF electrode[.]; and
wherein the dielectric positioned to provide for passage of energy through the dielectric to a tissue surface.

95. (previously presented) The RF apparatus of claim 94, further comprising:
a cooling fluidic medium dispensing assembly coupled to the housing.

96. (previously presented) The RF apparatus of claim 95, wherein the cooling fluidic medium dispensing assembly includes a valve member.

97. (previously presented) The RF apparatus of claim 95, wherein the cooling fluidic medium valve member is positioned in the housing.

98. (previously presented) The RF apparatus of claim 97, wherein the cooling fluidic medium dispensing assembly includes a nozzle.

99. (previously presented) The RF apparatus of claim 95, wherein the fluid delivery member is configured to deliver a controllable amount of cooling fluidic medium to the RF electrode.

100. (previously presented) The RF apparatus of claim 95, wherein the fluid delivery member is configured to controllably deliver a cooling fluidic medium to a back surface of the RF electrode.

101. (previously presented) The RF apparatus of claim 94, further comprising:
a force sensor coupled to the RF electrode.

102. (currently amended) An RF apparatus, comprising:

a housing; and

an RF electrode coupled to the housing, the RF electrode including a backside, a front side and a flex circuit with at least a portion of RF electrode formed of the flex circuit, the RF having a conductive portion and a dielectric with the dielectric positioned and configured to reduce an edge current effect at the RF electrode

103. (new) A handpiece, comprising:

a handpiece assembly including a handpiece housing; and

an insert detachably coupled to the handpiece housing, the insert including an RF electrode with a conductive portion and a dielectric between the conductive portion and a skin surface when the RF electrode is positioned at the skin to provide for passage of current through the dielectric and not directly to a tissue.

104. (new) A handpiece, comprising:

a handpiece assembly including a handpiece housing; and

an insert detachably coupled to the handpiece housing, the insert including an RF electrode with a conductive portion and a dielectric, a tissue interface surface and a back surface, the dielectric positioned to provide for passage of current through the dielectric and not directly to a tissue; and

a fluid delivery member configured to controllably deliver fluid to a backside of the RF electrode to evaporatively cool the RF electrode and conductively cool a skin surface in contact with the front side of the RF electrode.

105. (new) A handpiece, comprising:

a handpiece assembly including a handpiece housing; and

an insert detachably coupled to the handpiece housing, the insert including an RF electrode with a conductive portion and a dielectric, a tissue interface surface and a back surface, the dielectric positioned to provide for passage of current through the dielectric and not directly to a tissue; and

a cooling member that includes a fluid delivery member is configured to controllably deliver a cooling fluidic medium to the back surface of the RF electrode at substantially any orientation of the tissue interface surface relative to a direction of gravity.

106. (new) A handpiece, comprising:
a handpiece assembly including a handpiece housing; and
an insert detachably coupled to the handpiece housing, the insert including an RF electrode with a conductive portion and a dielectric, the RF electrode being sufficiently sealed to minimize flow of a cooling fluidic medium from the back surface of the RF electrode to the tissue interface surface, the dielectric positioned to provide for passage of current through the dielectric and not directly to a tissue.

107. (new) A handpiece, comprising:
a handpiece assembly including a handpiece housing;
an insert detachably coupled to the handpiece housing; and
an RF electrode at least partially positioned in the insert, the RF electrode including a flex circuit, the RF electrode having a conductive portion and a dielectric that is positioned between the conductive portion and a skin surface when the RF electrode is positioned at the skin surface, the dielectric positioned to provide for passage of current through the dielectric and not directly to a tissue.

108. (new) A handpiece, comprising:
a handpiece assembly including a handpiece housing;
an insert detachably coupled to the handpiece housing; and
an RF electrode positioned in the insert, the RF electrode including a flex circuit and have a conductive portion and a dielectric, the dielectric positioned to provide for passage of current through the dielectric and not directly to a tissue; and
a cooling fluidic medium dispensing assembly with a valve member and coupled to the insert and the handpiece housing; and wherein the fluid delivery member is configured to controllably deliver fluid to a backside of the RF electrode to evaporatively cool the RF electrode and conductively cool the skin surface in contact with the front side of the RF electrode.

109. (new) A handpiece, comprising:
a handpiece assembly including a handpiece housing;
an insert detachably coupled to the handpiece housing, the insert including a flex circuit and an RF electrode that includes a conductive portion and a dielectric positioned to provide capacitive coupling between the conductive portion and a tissue surface, the dielectric positioned to provide for passage of current through the dielectric and not directly to a tissue.

110. (new) An RF apparatus, comprising:

a housing; and

an RF electrode coupled to the housing, the RF electrode having a conductive portion and a dielectric that is positioned between the conductive portion and a skin surface when the RF electrode is positioned at the skin and provide capacitive coupling between the conductive portion and the skin surface;

wherein, the dielectric positioned to provide for passage of current through the dielectric and not directly to a tissue.